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United States
Department of
Agriculture

Soil
Conservation
Service

Portland,
Oregon



Water Supply Outlook for Oregon

as of JANUARY 1, 1982

APR 9 1982

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TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: LONE CONE, NEAR NORWOOD COLORADO, BLANKETED
BY ITS WINTER MANTLE OF SNOW.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno, Nevada 89505
Oregon	1220 S. W. Third Ave., Portland, Oregon 97204
Utah	4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U. S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.



WATER SUPPLY OUTLOOK FOR OREGON

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued

JANUARY 1, 1982

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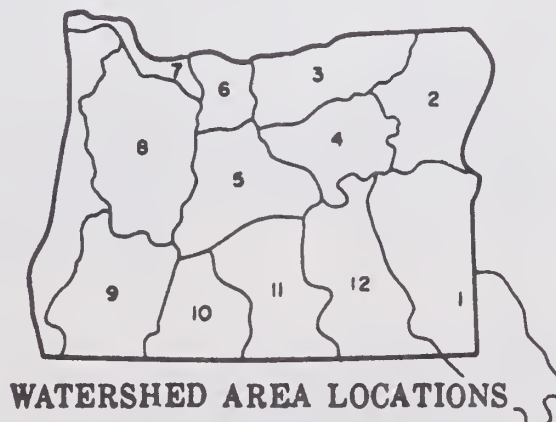
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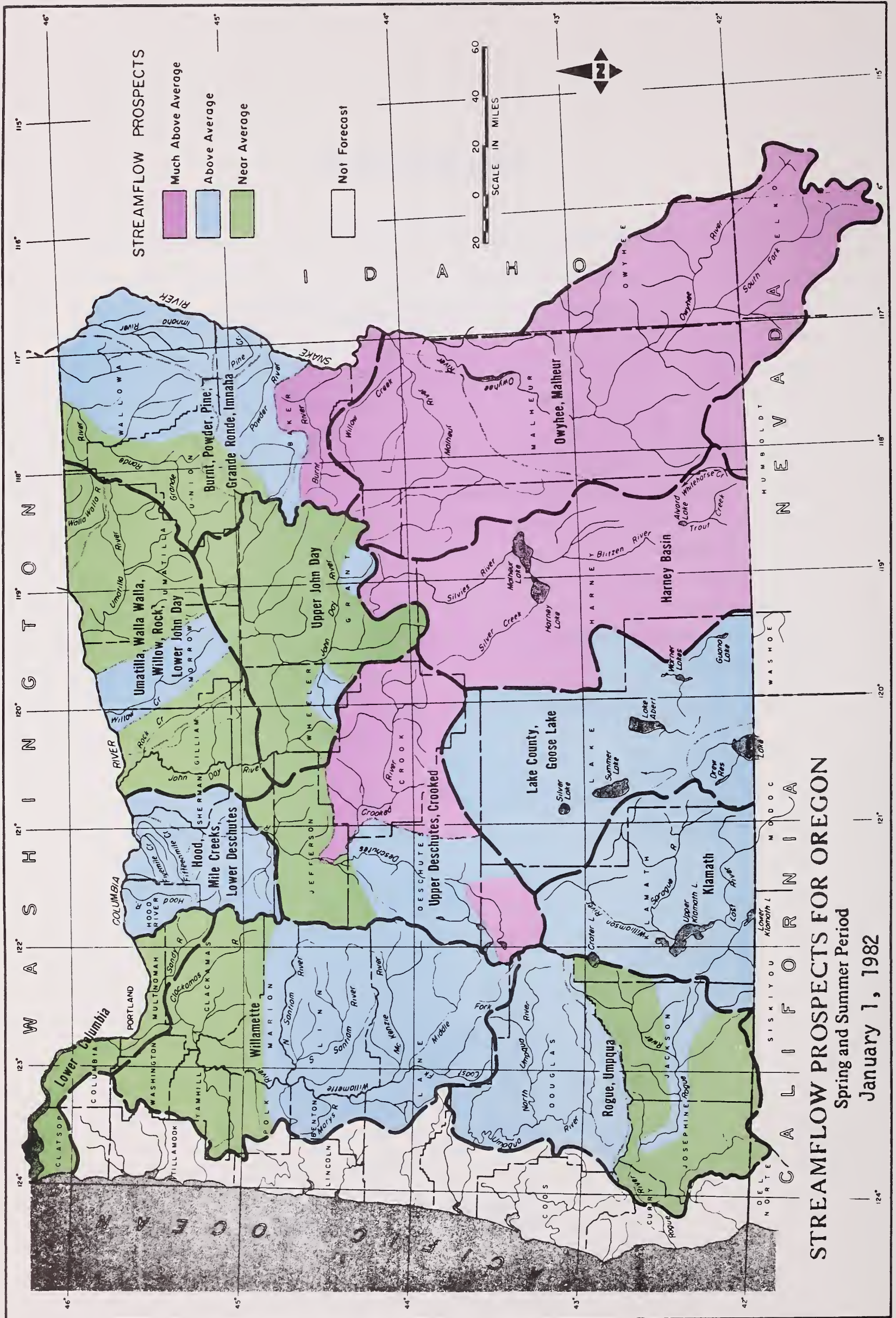
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WATER SUPPLY OUTLOOK AND SUMMARY FOR OREGON

JANUARY 1, 1982

*
* Water supplies for all water users in Oregon should be average to above *
* average next spring and summer. Early season storms have brought *
* generous amounts of snow to Oregon's mountain watersheds. If this *
* trend continues, streamflow next summer should be well above average *
* in most of the state. *
*

SNOW COVER

The snowpack varies from 120 to 175 percent throughout Oregon. The only exceptions are a few lower elevation watersheds in the Cascades and Lake County where the January 1 snowpack was 65 to 95 percent of average. Storms the first 6 days of January have remedied this situation, however, with amounts of 30" to 80" of snow falling in the Cascades during this period.

PRECIPITATION

Precipitation as reported by the National Weather Service for the November-December period was much above average over all of Oregon. Greatest amounts were in southern Oregon at 165-270 percent of normal. The northern part of the State received amounts 120 to 160 percent of normal. Warm rains early in December melted some of the snow in the southern tier of counties causing some flooding. This resulted in a below average snowpack and excellent soil moisture on January 1 in part of the area, especially Lake County.

RESERVOIR STORAGE

Twenty-four major irrigation reservoirs were storing 1,703,500 acre feet of water on January 1. This is 102% of average and 54% of capacity. Most contained average to above average amounts of water.

STREAMFLOW

Streamflow was much above average in all areas of the State during December, as the winter storms continued a pattern of passing right over Oregon and dumping copious amounts of precipitation.

-continued on next page-

Representative forecasts of spring and summer streamflows compared to the 1963-77 average are as follows:

<u>STREAM</u>	<u>PERIOD</u>	<u>% OF AVERAGE</u>
Owyhee net Inflow	April-Sept.	141
Grande Ronde @ LaGrande	April-Sept.	102
Umatilla @ Pendleton	March-Sept.	108
Deschutes @ Benham Falls	April-Sept.	101
Willamette, Mid.Fk. near Oakridge	April-Sept.	112
Rogue @ Raygold	April-Sept.	120
Upper Klamath Lake net Inflow	April-Sept.	130
Silvies nr. Burns	April-Sept.	145

These forecasts assume normal precipitation and temperatures will occur from January 1 through June.

The forecasts in this bulletin are a result of coordinated activity between the Soil Conservation Service and the National Weather Service as an effort to provide the best possible service to water users.

This report contains data furnished by the Oregon Department of Water Resources, U.S. Geological Survey, NOAA National Weather Service and other cooperators.

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Bully Creek at Warm Springs	23	182	March-May		12.6 ^b
Malheur near Drewsey	173	162	Feb.-July		107
	111	152	Apr.-Sept.		73
Malheur, North Fork at Beulah	131	159	Feb.-July		82
	104	155	Apr.-Sept.		67
Owyhee Reservoir net Inflow	814	141	Feb.-July		578
	489	125	Apr.-Sept.		392
Owyhee at Rome	834	140	Feb.-July		596 ^b
Succor Creek near Jordan Valley	25	162	Feb.-July		15.4 ^b

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Owyhee near Rome	2000	May 26	May 14
	1000	June 14	May 28
	500	July 4	June 11

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Beulah Reservoir	60.0	33.2	16.3	19.4
Bully Creek	30.0	19.8	12.8	10.4
Owyhee	715.0	382.5	502.0	372.8
Warm Springs	191.0	106.5	129.8	77.5

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Jordan Creek	1	333	204
Malheur River	4	247	170
Owyhee River	4	288	147

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

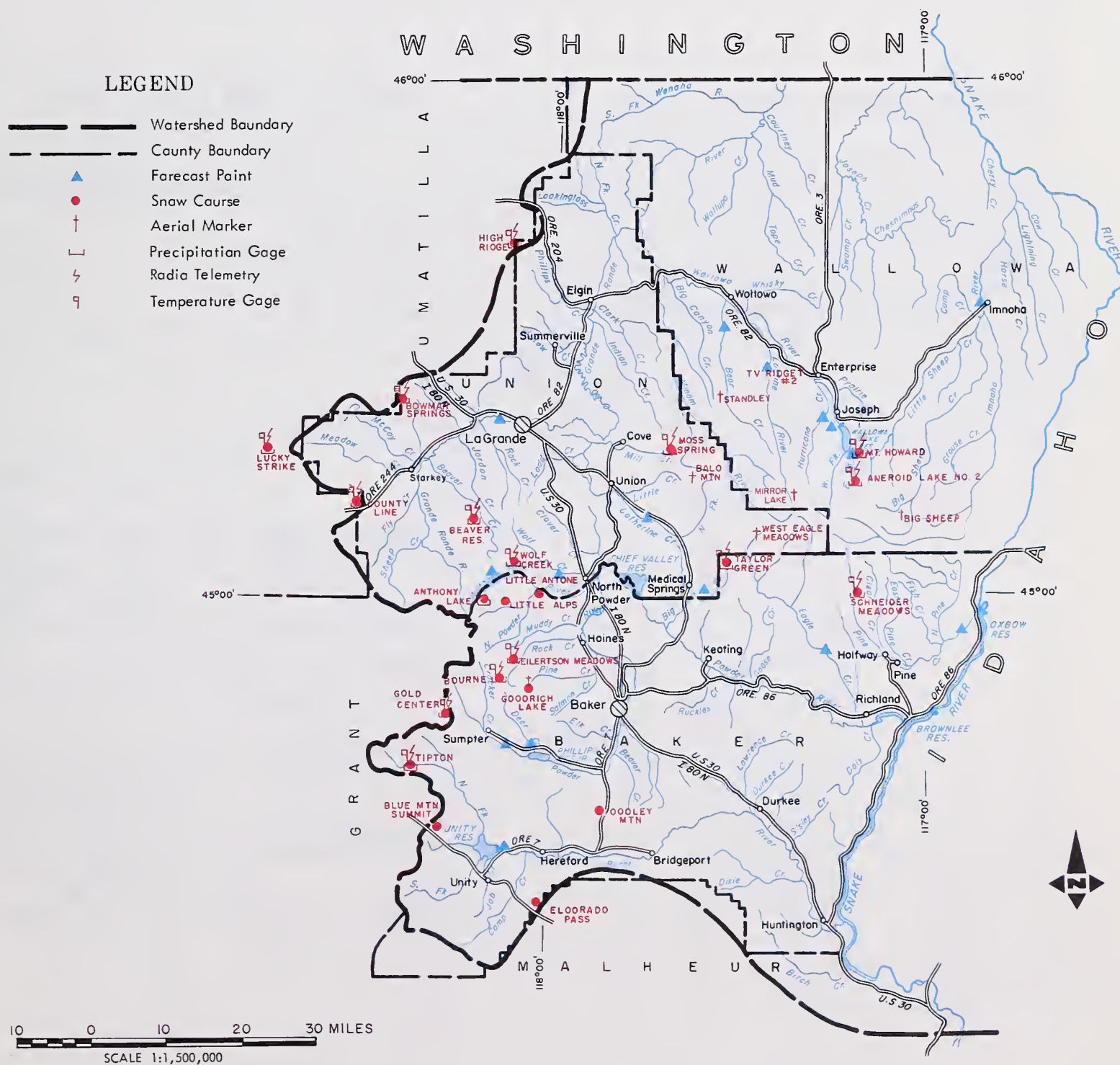
WATER SUPPLY OUTLOOK

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS

OREGON

GENERAL OUTLOOK

Water supplies next summer should be above average for all users according to early season indicators. The mountain snow cover is 175% of average on the Burnt drainage, 114% on the Powder and 126% on the Grande Ronde. Precipitation for November-December was 120% of average. Reservoir storage has improved somewhat and is now average to slightly above for this time of year.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average	PERIOD	Last Year Average ^c
Anthony Creek blw. North Fork nr. North Powder	17.3	100	Feb.-July	17.3
Bear near Wallowa	70	108	April-Sept.	65
Big Creek blw. Burn Creek nr. Medical Spring	14.0	114	Feb.-July	12.3
Burnt near Hereford	80	159	Feb.-July	50
	59	161	April-Sept.	36
Catherine near Union	68	106	April-Sept.	64
Deer Creek abv. Phillips Res. nr. Sumpter	20.0	110	Feb.-July	18.3 ^b
Eagle Creek abv. Skull Creek	190	112	April-July	169
	207	112	April-Sept.	184
Grande Ronde at La Grande	201	101	March-Sept.	199
	164	102	April-Sept.	161
Hurricane near Joseph	48	102	April-Sept.	46
Imnaha at Imnaha	373	122	April-Sept.	305
Lostine near Lostine	124	101	April-Sept.	123
Pine Creek nr. Oxbow	262	110	Feb.-July	238 ^b
Powder near Sumpter	67	118	April-July	57
	69	119	April-Sept.	58
Wallowa, East Fork near Joseph	14.1	110	Feb.-Sept.	12.8
	12.8	112	April-Sept.	11.5
Wallowa at Joseph	83	113	April-July	73
Wolf Creek Res. net Inflow	14.0	106	March-June	13.2 ^b

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Phillips Lake	73.5	43.8	--	35.7 ^b
Thief Valley	17.4	17.6	17.7	15.4 ^b
Unity	25.2	12.9	16.9	9.3
Wallowa Lake	37.5	20.9	19.2	20.0
Wolf Creek	10.4	3.0 ^a	5.3	--

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Burnt River	3	231	174
Grande Ronde River above La Grande	3	2,540	126
Powder River	2	390	114
Wallowa, Imnaha, Catherine Creek	-	--	--

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Eagle Cr.abv.Skull Cr.	225 160	July 30 Aug. 10	July 25 Aug. 5
Catherine Cr.nr.Union	51 100 50	Aug. 1 July 10 July 30	Avg.value 49 July 9 July 28
Powder near Sumpter	100 20	June 27 July 26	June 25 July 22
Deer Cr. abv. Phillips Res. nr. Sumpter	40 10	June 22 July 9	June 17 July 6

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

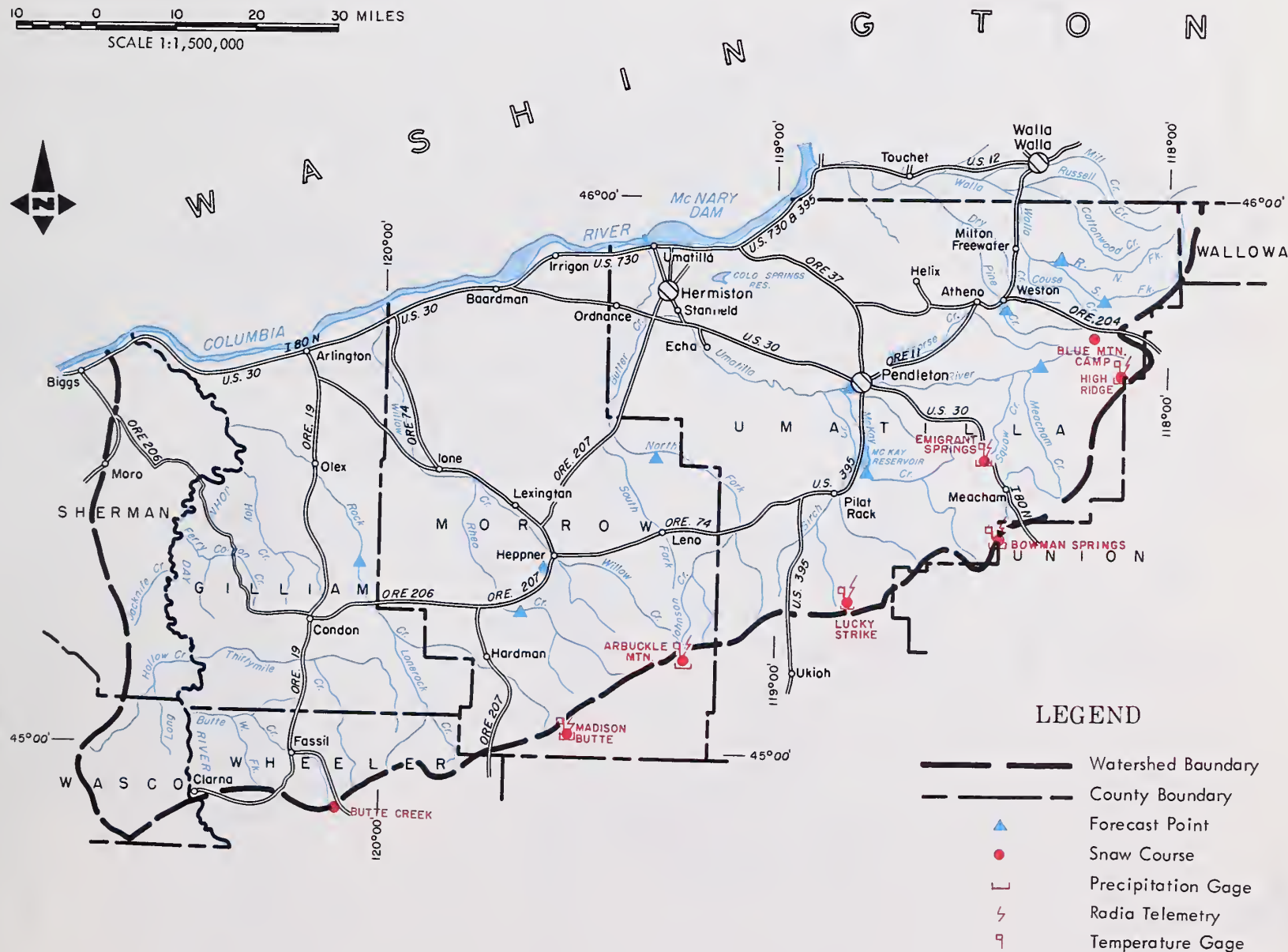
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS

OREGON

GENERAL OUTLOOK

Water supplies next summer should be good for all users according to early season indicators. The mountain snowpack is 156% of average on McKay Creek, 101% on the Umatilla and 89% on the Walla Walla. Precipitation during November and December was 120% of normal. Reservoir storage was above average in both McKay and Cold Springs on January 1.

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STREAMFLOW FORECASTS

STREAMFLOW FORECASTS	THIS YEAR			PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Butter Creek nr. Pine City	11.9	110	March-July		10.7
Couse Creek nr. Milton Freewater	7.9	114	Feb.-July		7.2 ^b
McKay near Pilot Rock	24	109	April-Sept.		22
Pine Creek near Weston	6.3	111	Feb.-July		5.7 ^b
Rhea Creek nr. Heppner	8.1	100	Feb.-July		8.1
Rock Creek abv. Cayuse Canyon nr. Condon	23.5	112	Feb.-July		21 ^b
Umatilla near Gibbon	110	111	March-Sept.		99
	86	110	April-Sept.		78
Umatilla at Pendleton	221	108	March-Sept.		204
Walla Walla, South Fork near Milton	81	99	March-Sept.		82
	68	98	April-Sept.		69
Willow Creek at Heppner	10.8	128	Feb.-July		8.4

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Umatilla at Pendleton	550	May 20	May 17
So. Fk. Walla Walla near Milton	200	June 11	June 9
	107	Aug.-Sept. Minimum	Avg. value 105

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Cold Springs	50.0	20.0	11.9	17.9
McKay	73.8	30.6	25.4	20.9

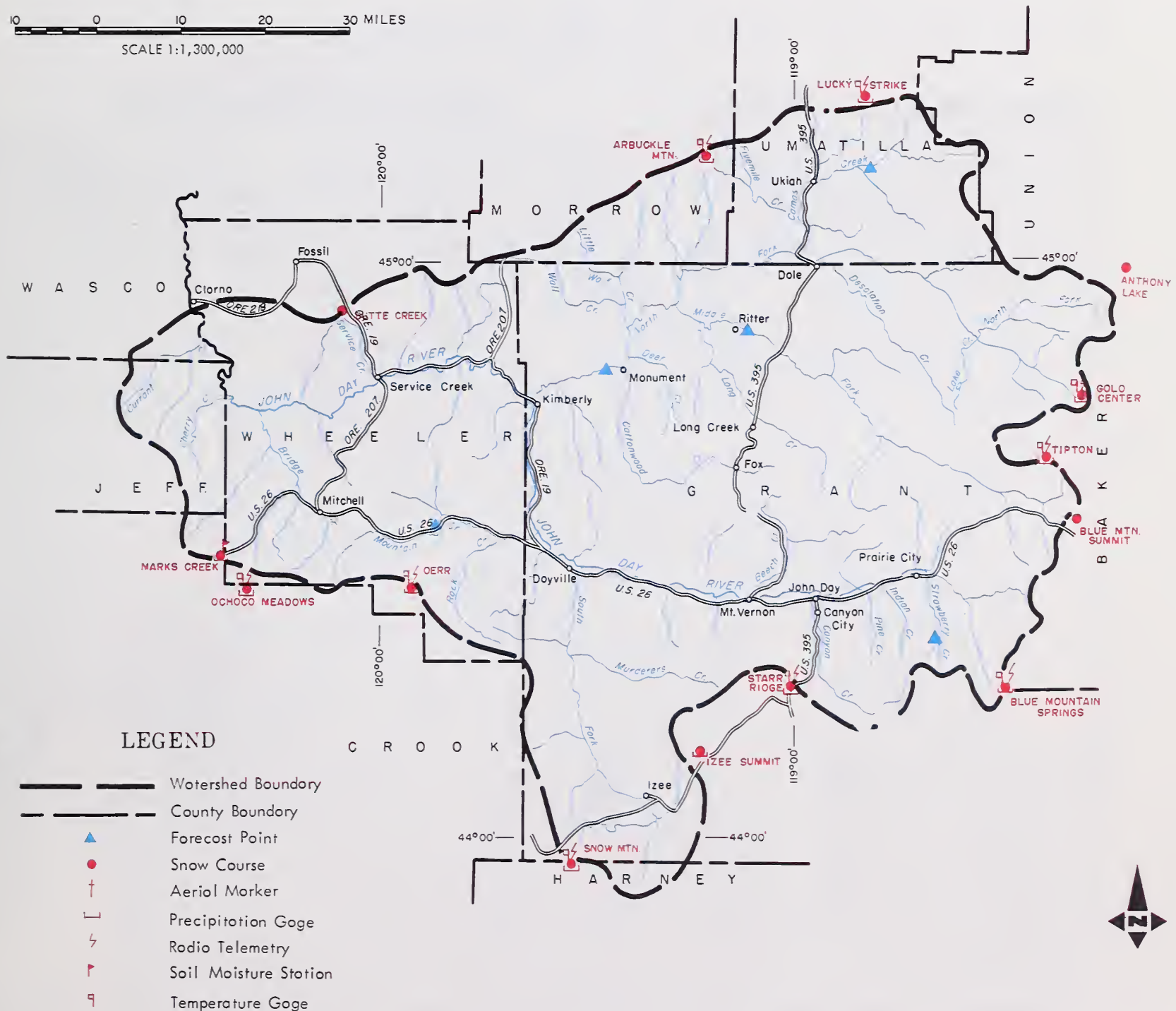
SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
McKay Creek	2	1,680	156
Umatilla River	3	371	101
Walla Walla River	2	361	89

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

Water supplies should be excellent in the John Day basin next summer according to early season indicators. The mountain snowpack is 165% of average. Winter precipitation to date has been 155% of normal.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Camas Creek near Ukiah	47	113	March-July		42
	34	103	April-Sept.		34
John Day, Middle Fork at Ritter	202	152	March-July		133
	171	151	April-Sept.		113
John Day, North Fork at Monument	728	113	March-July		639
	614	113	April-Sept.		541
Mountain Creek nr. Mitchell	5.2	130	March-July		4.6 ^b
Strawberry near Prairie City	9.3	125	March-July		7.3
	9.7	122	April-Sept.		7.7

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
John Day at Service Cr.	289	Aug. 1	Avg. value 212

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
John Day, North Fork	4	273	163
John Day abv. Dayville	3	227	166

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

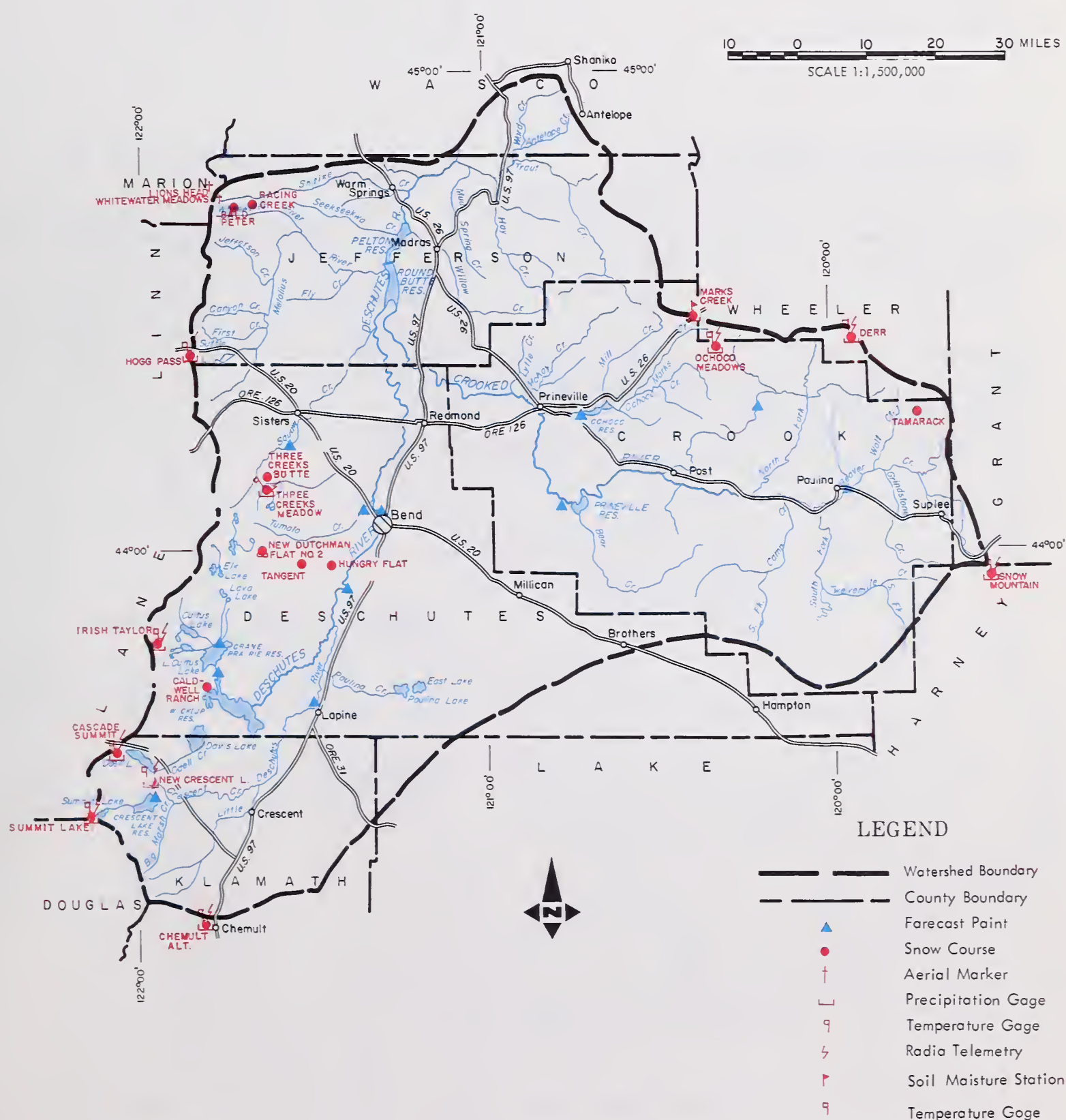
WATER SUPPLY OUTLOOK

UPPER DESCHUTES, CROOKED WATERSHEDS

OREGON

GENERAL OUTLOOK

Water supplies next summer should be above average for all users according to early season indicators. The mountain snow cover is 175% of average on the Burnt drainage, 114% on the Powder and 126% on the Grande Ronde. Precipitation for November-December was 120% of average. Reservoir storage has improved somewhat and is now average to slightly above for this time of year.



STREAMFLOW FORECASTS

STREAMFLOW FORECASTS	THIS YEAR			PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Beaver Creek near Paulina	70	179	Feb.-July		39
	27	169	April-Sept.		16.1
Crane Prairie Reservoir total Inflow	152	127	April-Sept.		120
Crescent at Crescent Lake	23	115	March-July		20
	25	115	April-Sept.		22
Crooked River nr. Prineville	233	145	Feb.-July		161
	126	140	April-Sept.		90
Crooked R.,No. Fk. blw. Lookout Cr. nr. Paulina	20.0	138	Feb.-July		14.5 ^b
Deschutes below Bend	Not Forecast this Month.				
Deschutes at Benham Falls	364	101	April-July		360
	573	101	April-Sept.		568
Deschutes below Snow Creek	96	128	Feb.-Sept.		75
	85	134	April-Sept.		63
Deschutes, Little near La Pine	160	156	Feb.-July		102
	128	152	April-July		74
Ochoco Reservoir net Inflow	41	140	Feb.-July		29
	21	131	April-Sept.		16
Squaw near Sisters	61	127	April-Sept.		49
Tumalo near Bend	50	110	April-Sept.		45

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Crane Prairie net Inflow	548 321 Peak	Peak Oct. 31 May 31	
Crooked R. near Post	100	June 15	June 1
Deschutes at Bend	Not Forecast This Month		
Little Deschutes nr. La Pine	400 200	June 16 July 26	June 7 July 8
Squaw Cr. nr. Sisters	100	Sept. 1	Aug. 16
Tumalo Cr. nr. Bend	235 207 150 71	July 11 July 14 July 25 Sept. 1	June 23 June 25 July 5 Aug. 7

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Crane Prairie	55.3	31.7	25.7	41.2
Crescent Lake	86.9	22.9	20.4	51.9
Ochoco	47.5	29.4	28.1	20.6
Prineville	153.0	92.7	96.5	97.8
Wickiup	200.0	104.0	107.4	134.4

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Crooked, Ochoco	1	--	162
Deschutes abv. Wickiup	1	280	164
Little Deschutes	2	676	161
Tumalo & Squaw Crs.	2	299	174

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

OREGON

GENERAL OUTLOOK

Water supplies in Hood River and Wasco counties should be good next summer according to early season indicators. The mountain snowpack is 145% of average. November-December precipitation has been 145% of average. Streamflow is expected to be above average during the spring and summer months.

10 0 10 20 MILES
SCALE 1:1,000,000



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Hood River at Tucker Bridge nr. Hood River	264	109	April-July		247
	312	108	April-Sept.		293
Hood River, West Fork near Dee	141	111	April-July		127
	164	110	April-Sept.		149
White below Tygh Valley	131	115	April-July		114
	147	114	April-Sept.		129

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Clear Branch Inflow	*46	July 15-31	**39
*Average cfs forecast to flow for this two-week period.			
**Average cfs for period of record.			
White blw. Tygh Valley	200	July 10	July 3
	155	Aug. 1	Avg. value 145

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Clear Lake (Wasco)	11.9	0.7	1.1	3.9

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Hood River	3	734	145
Mile Creeks	-	--	--
White River	3	734	145

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

LOWER COLUMBIA WATERSHEDS

OREGON

GENERAL OUTLOOK

Water supplies along the lower Columbia should be near normal next summer. The snowpack is 80 to 90% of average on the Upper Columbia in Canada and gradually improves to the south. Central Washington and southern Idaho are 110 to 130% of average. The Oregon portion of the basin is 100 to 170% of normal. The storm path has been right over Oregon and as a result the southern portion of the basin is in the best condition. Streamflow on the Columbia should be near 100% next spring and summer.



SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Sandy River	2	658	142

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Columbia at The Dalles	89,600	101	April-July		88,520
	105,000	101	April-Sept.		103,490
Sandy River near Marmot	315	96	April-July		329
	364	95	April-Sept.		384

HISTORICAL DATA (Columbia River at The Dalles)

YEAR	STREAMFLOW ^d (1,000 AF)			REGULATED PEAK (1,000 cfs)	DATE
	APR — SEPT.	APR — JUNE	MAY — JUNE		
1963	87,860	58,499	47,812	437	June 18
1964	110,422	73,512	63,670	662	June 18
1965	114,222	80,098	62,467	520	June 9
1966	87,386	58,250	45,962	396	June 12
1967	109,319	74,378	66,452	622	June 10
1968	89,102	55,593	47,994	404	June 13
1969	112,377	85,742	63,899	515	May 15
1970	88,243	62,993	55,227	425	May 28
1971	126,898	91,781	76,453	557	May 13
1972	135,500	97,041	81,451	619	June 20
1973	65,549	43,765	36,565	221	December 5
1974	139,501	99,035	78,946	588	June 20
1975	108,906	73,018	62,861	422	May 17
1976	122,771	79,084	62,554	418	May 14
1977	54,108	35,505	28,394	213	January 25
1963-77 Avg.	103,478	71,220	58,714	468	

LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

VANCOUVER GAGE (Weather Bu)	FLOW AT THE DALLES (1,000 cfs)	DRAINAGE DISTRICT PUMPHOUSE						
		SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
		RIVER MILES						
		118.9	96.0	91.0	77.0	62.0	52.0	47.0
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32 (1972)	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

Water supplies should be excellent for all users next summer according to early season indicators. The snow cover in the Willamette basin is 125% of average. This is nearly 10 times the snow that was measured last year. November-December precipitation was 150% of average. The major Willamette Reservoirs have been drawn down by the Corps of Engineers as usual for this time of year for flood protection purposes. Streamflow is expected to be average to above on the mainstem of the Willamette and all of its tributaries.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Clackamas at Estacada	734	110	April-July		667
	860	110	April-Sept.		782
Clackamas above Three Lynx	557	110	April-July		506
	663	110	April-Sept.		603
McKenzie at McKenzie Bridge	481	107	April-July		452
	636	106	April-Sept.		598
McKenzie near Vida	1,188	116	April-July		1,024
	1,441	114	April-Sept.		1,259
McKenzie, So. Fork near Rainbow	232	112	April-July		207
	262	112	April-Sept.		234
Mohawk River near Springfield	217	131	Feb.-July		166
Oak Grove Fork above Power Intake	148	112	April-July		132
	188	112	April-Sept.		168
Row near Dorena	92	93	April-July		98
	97	93	April-Sept.		104
Santiam, North at Mehama	842	112	April-July		752
	963	112	April-Sept.		860
Santiam, South at Waterloo	645	118	April-July		547
	696	118	April-Sept.		590
Scoggins Creek nr. Gaston	44	100	Feb.-July		44
Thomas Creek near Scio	163	102	Feb.-July		160
Willamette, Coast Fork nr. London	31	112	April-July		27
Willamette, Mid. Fk. blw. N. Fk. nr. Oakridge	762	113	April-July		678
	866	112	April-Sept.		776
Willamette, No. Fk. of Mid. Fk. near Oakridge	235	125	April-July		188
	261	125	April-Sept.		209
Willamette at Salem	4,932	105	April-Sept.		4,697

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Clackamas River	2	--	172
McKenzie River	--	--	--
Row River	3	--	73
Santiam River	4	1,321	142
Willamette, Mid Fk.	3	785	118

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Blue River	85.6*	6.7	12.8	1.1 ^b
Cottage Grove	30.0*	0.4	0.3	1.2
Cougar	155.2*	23.2	24.2	12.0 ^b
Detroit	299.9*	43.4	109.2	31.6
Dorena	70.5*	10.4	1.0	4.4
Fall Creek	115.0*	19.1	1.0	0.0 ^b
Fern Ridge	94.2*	8.1	13.2	8.2 ^b
Foster	30.0*	0.1	0.3	0.5 ^b
Green Peter	270.0*	51.0	89.7	22.5 ^b
Hills Creek	200.0*	87.4	36.8	14.5
Lookout Point	337.2*	147.7	48.2	29.2
Timothy Lake	61.7	56.2	46.5	52.4
Henry Hagg Lake	53.0	32.8	35.1	--

* Multiple purpose reservoir--space reserved primarily for flood runoff.

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

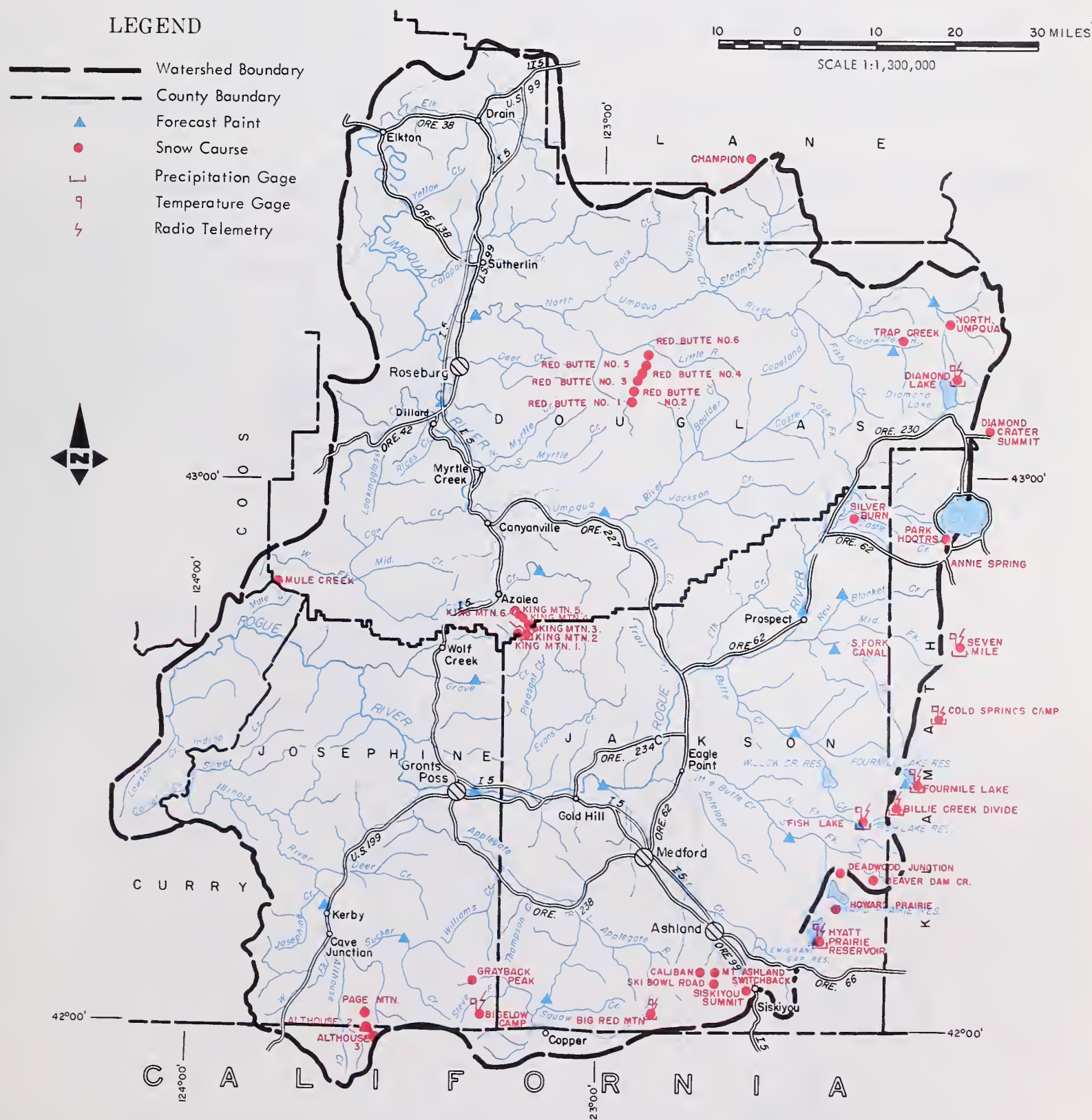
WATER SUPPLY OUTLOOK

ROGUE, UMPQUA, WATERSHEDS

OREGON

GENERAL OUTLOOK

Water supplies should be good for all users next summer according to early season indicators. The snow cover is 156% on the Rogue and 150% on the Umpqua. This is 17 times as much snow as was measured on the Rogue last year and 30 times as much on the Umpqua. Precipitation during November-December was 165% of average. Early January storms have added much snow to the January 1 snowpack. Reservoir storage is average to above. Streamflow is expected to be near normal to above normal next spring and summer.



STREAMFLOW FORECASTS

STREAMFLOW FORECASTS	THIS YEAR			PAST RECORD	
BASIN, STREAM and/or FORECAST POINT	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Applegate near Copper	121	94	April-Sept.		129
Clearwater above Trap Creek	69	97	April-Sept.		71
Cow Creek nr. Azalea	41	95	Feb.-July		43
Fourmile Lake net Inflow	5.0	128	April-Sept.		3.9
Grave Creek at Pease Bridge nr. Placer	19.0	92	Feb.-July		21
Hyatt Reservoir net Inflow	5.0	102	April-July		4.9
Illinois River near Kerby	176	100	April-July		176
	183	100	April-Sept.		183
Little Butte, N. Fk. at Fish Lake nr. Lake Cr.	19.1	136	April-Sept.		14.0
Little Butte, S. Fk. near Lake Creek	42	125	April-Sept.		34
Red Blanket Creek nr. Prospect	40	113	April-July		35
Rogue above Prospect	257	100	April-July		257
Rogue, South Fork near Prospect	66	106	April-July		62
	78	106	April-Sept.		74
Rogue at Raygold near Central Point	912	121	April-July		756
	1,100	120	April-Sept.		919
Rogue at Grants Pass	932	122	April-July		759
	1,106	121	April-Sept.		908
Sucker Cr. blw. Little Grayback nr. Holland	69	118	April-July		58
Umpqua, No. blw. Lemolo Lake, nr. Toketee Falls	185	109	April-Sept.		170
Umpqua, No. at Winchester	922	120	April-July		768
Umpqua, So. near Brockway	427	112	April-July		380
Umpqua, So. at Tiller	195	106	April-July		183
So. Fk. Big Butte Cr. nr. Butte Falls	44	121	April-July		37

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Cow Creek nr. Azalea	20	July 9	July 4
	10	Aug. 24	Aug. 19
Little Butte Creek, South Fork	100	June 5	May 15
South Umpqua nr. Brockway	90	Aug. 15	July 30
South Umpqua at Tiller	140	July 16	July 10
	90	Aug. 8	July 30
	60	Sept. 9	Aug. 27

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Applegate	75.2	11.4	--	--
Emigrant Lake	39.0	24.3	20.7	18.9
Fish Lake	8.0	3.3	4.0	5.6
Fourmile Lake	16.1	N/R	4.6	9.0 ^b
Howard Prairie	60.0	40.0	43.8	41.7
Hyatt Prairie	16.1	11.4	10.5	10.9
Lost Creek	315.0	151.1	144.4	--

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Applegate	-	--	--
Bear Creek	1	--	66
Butte Creek	4	796	89
Illinois River	-	--	--
North Umpqua	2	2,950	150
Rogue River	2	1,096	156
Mt. Ashland	1	--	66

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK KLAMATH WATERSHEDS OREGON

GENERAL OUTLOOK

Water supplies are expected to be very good next summer according to early season indicators. The snowpack in Klamath County is 145%. Some below average snow cover was measured on the Sprague River because of warm rains melting some of the existing snow early in December. January storms to date have generally replaced this deficit. Precipitation during November-December was 223% of average. Reservoir storage has improved considerably and is above average in Upper Klamath Lake, near average in Gerber and below average in Clear Lake. Streamflow next spring and summer is expected to be above average.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average	FORECAST PERIOD	Last Year Average ^c
Clear Lake Reservoir Inflow	110	120	Feb.-July	92
Gerber Reservoir Inflow	53	130	Feb.-July	41
Sprague near Chiloquin	447	130	Feb.-Sept.	344
	315	130	April-Sept.	242
Upper Klamath Lake net Inflow	1,140	130	Feb.-Sept.	877
	684	130	April-Sept.	526
Williamson below Sprague River	772	130	Feb.-Sept.	594
	532	130	April-Sept.	409

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Clear Lake	440.2	174.8	149.3	203.2
Gerber	94.0	47.1	27.9	46.0
Upper Klamath Lake	584.0	398.9	303.5	350.7

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Lost River	1	--	155
Sprague River	2	350	67
Upper Klamath	5	829	147
Williamson River	3	923	167

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Chewaucan near Paisley	110	124	March-July		88
Cottonwood Creek nr. Lakeview	14.5	125	March-July		11.6
Deep above Adel	100	125	March-July		80
Drews Reservoir net Inflow	49	120	March-July		41
Honey Creek near Plush	24	115	March-July		21
Silver Creek near Silver Lake	18.3	130	April-July		14.1
Twentymile near Adel	34	130	March-July		26
Bridge Cr. nr. Spahr Ranch nr. Silver Lake	4.2	125	April-July		3.4

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Deep Cr. above Adel	100	July 7	June 21
Honey Cr. nr. Plush	100	June 10	May 15
	50	June 20	May 30
Twentymile near Adel	50	July 2	June 2
	10	Aug. 2	July 3

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Cottonwood	8.7	7.0	--	2.1 ^b
Drews	63.0	41.1	29.6	34.3
Thompson Valley	19.5	4.0	15.5	9.2 ^b

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Chewaucan River	2	350	67
Deep Creek	1	--	94
Drew Creek	1	--	61
Honey Creek	1	--	94
Silver Creek	2	225	62
Twentymile Creek	-	--	--

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

LEGEND

- Watershed Boundary
- County Boundary
- Farecast Point
- Snow Course
- Aerial Marker
- Precipitation Gage
- Radia Telemetry
- Temperature Gage

Map Labels:

Counties: CROOK, DESCHUTES, HARNEY, LAKES, CATLOW, VALLEY, NEVADA, IDAHO.

Locations: Seneca, IZEE, SNOW MOUNTAIN, DELINTMENT LAKE, EMIGRANT BUTTE, Burns, Hines, Harney, Buchanan, Crane, Princeton, Wagonfire, Frenchglen, Folly Farm, Fields, Denio, OREGON CANYON, DISASTER PEAK, TROUT CREEK, PUEBLO SUMMIT, V LAKE, FISH CREEK, SILVIES, BUCKSKIN LAKE, BUCK PASTURE, STINKING WATER, CALL MEADOW, ROCK SPRINGS, BLUE MOUNTAIN SPRINGS, LAKE CREEK, STARR RIDGE, IZEE SUMMIT.

Geographical Features: HART MTN. REFUGE, HART MOUNTAIN, CATLOW VALLEY, V LAKE, FISH CREEK, BUCKSKIN LAKE, BUCK PASTURE, STINKING WATER, CALL MEADOW, ROCK SPRINGS, BLUE MOUNTAIN SPRINGS, LAKE CREEK, STARR RIDGE, IZEE SUMMIT.

Infrastructure: US 20, US 395, ORE 78, ORE 205.

Scale: 10 0 10 20 30 MILES
SCALE 1:1,500,000

Coordinates: 44°00', 43°00', 42°00', 119°00'

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Donner und Blitzen near Frenchglen	82	139	March-July		59
	75	132	April-Sept.		57
Silver near Riley	27	172	April-July		15.8
Silvies River near Burns	149	154	March-July		96
	109	145	April-Sept.		77
Trout Creek near Denio	12.4	133	March-July		9.3

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Silvies nr. Burns	400	May 24	May 5
	200	June 9	May 21
	100	July 1	June 9
	50	July 16	June 23
Donner und Blitzen	200	July 1	June 15
	100	July 15	July 5
=====			
Malheur Lake at Break in Cole Island Dike near Voltage	<u>GAGE HEIGHT</u>	<u>SURFACE ACRES</u>	<u>AVG. SURFACE ACRES</u>
	July 1 93.9	50,400	40,000
	Aug. 1 93.4	41,500	33,000

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Donner und Blitzen R.	1	--	216
Silver Creek	--	--	--
Silvies River	3	249	169
Trout Creek	--	--	--

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

JANUARY 1, 1982

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
OWYHEE MALHEUR WATERSHEDS AREA 1					
Antelope Ridge (Ida.)	12/30	20	4.3	0.0	--
Battle Creek (Ida.) *		e			
Bear Creek (Nev.)		e			
Big Bend (Nev.) Plw.(T)	1/1	--	4.5	1.5	3.2 b
Blue Mountain Springs	12/31	50	10.8	6.4	6.5
Blue Mtn. Spgs. Plw.(T)	12/31	--	11.7	--	--
Blue Mtn. Spgs. Plw.(S)	12/31	52	11.0	7.0	6.6 b
Blue Mtn. Spgs. Plw.(M)	12/31	--	10.8	--	5.4 b
Boulder Creek *		e			
Buck Pasture *		e			
Buckskin, Lower (Nev.)		e			
Buckskin, Upper (Nev.)		e			
Bull Basin (Ida.) *		e			
Bully Creek *		e			
Call Meadows *		e			
Columbia Basin (Nev.)		e			
Disaster Peak (Nev.)		e			
Eldorado Pass	12/31	16	3.2	0.0	2.0
Fawn Creek (Nev.)		e			
Fish Creek *	DISCONTINUED				
Fish Creek		e			
Fish Creek (Rev.)		e			
Fish Creek Pillow (T)	N/R			5.5	--
Fish Creek Pillow (S)		e			
Fish Creek Pillow (M)		e			
Flag Prairie *		e			
Fox Creek (Nev.)		e			
Fry Canyon (Nev.)	N/R			2.2	3.2
Gold Creek (Nev.)	N/R			0.0	1.9
Government Corrals		e			
Granite Peak (Nev.)		e			
Hyde Pasture (Ida.) *		e			
Jack Creek, Lower (Nev.)		e			
Jack Creek, Upper (Nev.)		e			
Jacks Peak (Nev.)		e			
Johnston Pond (Ida.) *		e			
Lake Creek R.S.	12/30	35	7.2	3.0	4.2
Lake Creek R.S. Plw.(T)	12/30	--	9.7	2.5	--
Lake Creek R.S. Plw.(S)	12/30	38	8.0	4.0	--
Lake Creek R.S. Plw.(M)	12/30	--	9.0	2.3	--
Laurel Draw (Nev.)		e			
Lookout Butte *		e			
Louse Canyon *		e			
Martin Creek (Nev.)		e			
Merritt Mountain (Nev.) *		e			
Midas (Nev.) *		e			
Mud Flat (Ida.)	12/30	23	5.2	1.5	--
Oregon Canyon *		e			
Quinn Ridge (Nev.) *		e			
Red Canyon (Ida.) *		e			
Rock Springs	12/29	25	4.0	0.8	2.1
Rock Spgs. Plw.(T)	12/29	--	5.0	--	--
Rock Spgs. Plw.(S)	12/29	26	4.8	0.0	--
Rock Spgs. Plw.(M)	N/R			0.0	--
Rodeo Flat (Nev.)	N/R			1.4	2.8
76 Creek (Nev.) *		e			
Silver City (Ida.)		e			
Silver City (Ida.) *		e			
Silvies *	DISCONTINUED				
Silvies		e			
Silvies Pillow (T)	N/R			3.0	--
Silvies Pillow (S)		e			
Silvies Pillow (M)		e			
South Mountain #2 (Ida.)	12/31	37	10.0	3.0	4.6
South Mtn. #2 Plw. (T)	N/R			2.4	--
Stag Mountain (Nev.) *		e			
Stinking Water	12/30	16	3.2	0.0	1.5
Succor Creek (Ida.) *		e			
Taylor Canyon (Nev.)	1/4	17	3.0	0.0	2.0
Toe Jam (Nev.) *		e			
Tremewan Ranch (Nev.) *	1/4	10	1.8	0.0	1.0 b
Trout Creek *		e			
"V" Lake *		e			
Vaught Ranch (Ida.) *		e			
War Eagle (Ida.) *		e			

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS AREA 2					
Aneroid Lake #2		e			
Aneroid Lake #2 Plw.(T)	N/R			3.8	--
Aneroid Lake #2 Plw.(S)		e			
Aneroid Lake #2 Plw.(M)		e			
Anthony Lake	12/28	60	11.3	6.7	11.1
Bald Mountain (OR) *		e			
Beaver Reservoir (Rev.)	12/30	28	6.8	0.0	5.4 b
Beaver Res. Pillow (T)	12/30	--	4.4	--	--
Beaver Res. Pillow (S)	12/30	26	5.2	0.0	--
Beaver Res. Pillow (M)	N/R				
Big Sheep *		e			
Blue Mtn. Summit	1/2	35	7.4	--	3.5
Bourne		e			
Bourne Pillow (T)	1/1	--	10.0	6.0	--
Bourne Pillow (S)		e			
Bourne Pillow (M)		e			
County Line (Rev.)	12/29	14	1.4	0.0	1.9
County Line Pillow (T)	12/29	--	1.7	0.0	--
County Line Pillow (S)	12/29	14	1.6	0.0	--
County Line Pillow (M)	12/29	--	1.3	0.0	--
Doolley Mountain	12/29	23	4.9	1.9	3.8
Eilertson Meadows	1/2	32	6.1	1.8	4.5
Eilertson Meadows Plw.(T)	1/2	--	5.7	--	--
Eilertson Meadows Plw.(S)	1/2	34	6.5	1.2	--
Eilertson Meadows Plw.(M)	1/2	--	5.6	0.7	--
Eldorado Pass	12/31	16	3.2	0.0	2.0
Gold Center	1/2	34	6.8	3.5	5.0 b
Gold Center Pillow (T)	1/1	--	5.5	--	--
Gold Center Pillow (S)	1/2	31	6.4	2.2	--
Gold Center Pillow (M)	1/2	--	5.5	1.7	--
Goodrich Lake		e			
Little Alps	12/28	34	5.2	1.1	5.4
Little Antone (Alt.)	12/28	26	3.8	3.0	--
Lucky Strike	12/29	23	4.0	0.2	--
Lucky Strike Pillow (T)	12/29	--	5.0	0.0	--
Lucky Strike Pillow (S)	12/29	22	4.0	0.0	--
Lucky Strike Pillow (M)	12/29	--	4.7	0.0	--
Mirror Lake *		e			
Moss Spring		e			
Moss Spring Pillow (T)	N/R			5.5	--
Moss Spring Pillow (S)		e			
Moss Spring Pillow (M)		e			
Mt. Howard Pillow (T)	1/1	--	6.0	3.6	--
Mt. Howard Pillow (S)		e			
Mt. Howard Pillow (M)		e			
Schneider Meadow		e			
Schneider Meadow Plw.(T)	1/1	--	14.8	5.4	--
Schneider Meadow Plw.(S)		e			
Schneider Meadow Plw.(M)		e			
Standley *		e			
Taylor Green		e			
Taylor Green Pillow (T)	1/1	--	10.1	4.6	--
Taylor Green Pillow (S)		e			
Taylor Green Pillow (M)		e			
Tipton	1/2	34	7.4	--	4.7
Tipton Pillow (T)	1/2	--	9.2	3.2	--
Tipton Pillow (S)	1/2	42	9.9	--	6.6 b
Tipton Pillow (M)	1/2	--	8.4	--	--
TV Ridge *		e			
West Eagle Meadows *		e			
Wolf Creek Pillow (T)	1/1	--	9.4	4.5	--
Wolf Creek Pillow (S)		e			
Wolf Creek Pillow (M)		e			

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

JANUARY 1, 1982

SNOW

SNOW	THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^C
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS AREA 3					
Arbuckle Mountain	12/29	26	4.4	0.0	--
Arbuckle Mountain Plw.(T)	12/29	--	11.1	2.4	--
Arbuckle Mountain Plw.(S)	12/29	44	9.5	3.5	--
Arbuckle Mountain Plw.(M)	12/29	--	11.8	2.3	--
Blue Mountain Camp	12/29	28	6.0	0.0	6.2
Bowman Springs Plw.(T)	12/29	--	6.2	1.6	--
Bowman Springs Plw.(S)	12/29	28	4.5	0.5	--
Bowman Springs Plw.(M)	12/29	--	6.1	1.4	--
Butte Creek Summit	N/R				
Emigrant Springs	12/29	26	3.9	0.0	2.6
Emigrant Springs Plw.(T)	N/R				
Emigrant Springs Plw.(S)	12/29	28	3.8	0.0	--
Emigrant Springs Plw.(M)	12/29	--	4.6	0.0	--
High Ridge Pillow (T)	12/31	--	12.8	--	--
High Ridge Pillow (S)	12/31	59	12.4	5.1	14.4
High Ridge Pillow (M)	12/31	--	12.3	--	--
Lucky Strike	12/29	23	4.0	0.2	--
Lucky Strike Pillow (T)	12/29	--	5.0	0.0	--
Lucky Strike Pillow (S)	12/29	22	4.0	0.0	--
Lucky Strike Pillow (M)	12/29	--	4.7	0.0	--
Madison Butte Pillow (T)	12/29	--	3.6	--	--
Madison Butte Pillow (S)	12/29	16	2.6	0.0	--
Madison Butte Pillow (M)	12/29	--	3.7	0.0	--
UPPER JOHN DAY WATERSHEDS AREA 4					
Anthony Lake	12/28	60	11.3	6.7	11.1
Arbuckle Mountain	12/29	26	4.4	0.0	--
Arbuckle Mtn. Plw.(T)	12/29	--	11.1	2.4	--
Arbuckle Mtn. Plw.(S)	12/29	44	9.5	3.5	--
Arbuckle Mtn. Plw.(M)	12/29	--	11.8	2.3	--
Blue Mountain Springs	12/31	50	10.8	6.4	6.5
Blue Mtn. Spgs. Plw.(T)	12/31	--	11.7	--	--
Blue Mtn. Spgs. Plw.(S)	12/31	52	11.0	7.0	6.6 ^b
Blue Mtn. Spgs. Plw.(M)	12/31	--	10.8	--	5.4 ^b
Blue Mountain Summit	1/2	35	7.4	--	3.5
Butte Creek Summit	N/R				
Derr		<i>e</i>			
Derr Pillow (T)	1/1	--	12.3	0.0	--
Derr Pillow (S)		<i>e</i>			
Derr Pillow (M)		<i>e</i>			
Gold Center	1/2	34	6.8	3.5	5.0 ^b
Gold Center Plw. (T)	1/1	--	5.5	--	--
Gold Center Plw. (S)	1/2	31	6.4	2.2	--
Gold Center Plw. (M)	1/2	--	5.5	1.7	--
Izee Summit	12/30	30	5.4	1.8	3.2
Lucky Strike	12/29	23	4.0	0.2	--
Lucky Strike Plw.(T)	12/29	--	5.0	0.0	--
Lucky Strike Plw.(S)	12/29	22	4.0	0.0	--
Lucky Strike Plw.(M)	12/29	--	4.7	0.0	--
Marks Creek	1/7	35	6.0	0.0	2.1 ^b
Ochoco Meadows		<i>e</i>			
Ochoco Meadows Plw.(T)	N/R				
Ochoco Meadows Plw.(S)		<i>e</i>			
Ochoco Meadows Plw.(M)		<i>e</i>			
Snow Mountain		<i>e</i>			
Snow Mountain Plw.(T)	1/1	--	7.2	1.5	3.9 ^b
Snow Mountain Plw.(S)		<i>e</i>			
Snow Mountain Plw.(M)		<i>e</i>			
Starr Ridge	12/30	23	4.2	0.8	2.6 ^b
Starr Ridge Plw. (T)	12/30	--	4.9	--	--
Starr Ridge Plw.(S)	12/30	24	4.4	1.0	--
Starr Ridge Plw. (M)	12/30	--	5.3	--	--
Tipton	1/2	34	7.4	--	4.7
Tipton Pillow (T)	1/2	--	9.2	3.2	--
Tipton Pillow (S)	1/2	42	9.9	--	6.6 ^b
Tipton Pillow (M)	1/2	--	8.4	--	--

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
UPPER DESCHUTES, CROOKED WATERSHEDS AREA 5					
Bald Peter	N/R				13.1 ^b
Beaver Creek	N/R				
Caldwell Ranch		<i>e</i>			
Cascade Summit	12/28	64	16.4	2.7	11.1
Cascade Summit Plw.(T)	12/28	--	18.6	--	--
Cascade Summit Plw.(S)	12/28	75	19.0	4.9	--
Cascade Summit Plw.(M)	12/28	--	18.0	4.2	--
Chemult Alternate	1/4	52	9.3	1.1	4.9 ^b
Chemult Alt. Plw.(T)	N/R				
Chemult Alt. Plw.(S)	1/4	54	9.5	0.0	--
Chemult Alt. Plw.(M)	1/4	--	9.2	0.0	--
Derr		<i>e</i>			
Derr Pillow (T)	1/1	--	12.3	0.0	--
Derr Pillow (S)		<i>e</i>			
Derr Pillow (M)		<i>e</i>			
Hogg Pass	12/29	80	23.0	3.3	14.8
Hogg Pass Pillow (T)	12/29	--	24.8	5.1	--
Hogg Pass Pillow (S)	12/29	85	24.2	4.3	--
Hogg Pass Pillow (M)	12/29	--	24.7	5.0	--
Hungry Flat	12/30	16	3.1	0.0	3.3 ^b
Irish-Taylor Pillow (T)	1/1	--	24.2	7.4	--
Irish-Taylor Pillow (S)		<i>e</i>			
Irish-Taylor Pillow (M)		<i>e</i>			
Lionshead *	N/R			0.0	--
Marks Creek	1/7	35	6.0	0.0	2.1 ^b
New Crescent Lake		<i>e</i>			
New Crescent Lake Plw.(T)	1/1	--	9.8	--	--
New Crescent Lake Plw.(S)		<i>e</i>			
New Crescent Lake Plw.(M)		<i>e</i>			
New Dutchman Flat #2	12/30	112	37.0	13.2	22.5 ^b
Ochoco Meadows		<i>e</i>			
Ochoco Meadows Plw.(T)	N/R				
Ochoco Meadows Plw.(S)		<i>e</i>			
Ochoco Meadows Plw.(M)		<i>e</i>			
Racing Creek	N/R			0.0	5.4 ^b
Snow Mountain		<i>e</i>			
Snow Mountain Plw.(T)	1/1	--	7.2	1.5	3.9 ^b
Snow Mountain Plw.(S)		<i>e</i>			
Snow Mountain Plw.(M)		<i>e</i>			
Summit Lake Pillow (T)	N/R				
Summit Lake Pillow (S)		<i>e</i>			
Summit Lake Pillow (M)		<i>e</i>			
Tamarack		<i>e</i>			
Tangent	12/30	67	18.0	5.2	9.2
Three Creek Butte		<i>e</i>			
Three Creek Meadow		<i>e</i>			
Three Creek Mdw. Plw.(T)	1/1	--	13.3	--	--
Three Creek Mdw. Plw.(S)		<i>e</i>			
Three Creek Mdw. Plw.(M)		<i>e</i>			
Whitewater Meadow *	N/R			0.0	--

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

JANUARY 1, 1982

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS AREA 6					
Brooks Meadow		e			
Clear Lake	12/31	27	5.8	0.0	3.3
Clear Lake Pillow (T)	N/R				
Clear Lake Pillow (S)	N/R				
Clear Lake Pillow (M)	12/31	--	9.7	0.0	--
Clear Lake Expt.	12/31	45	10.4	0.0	5.7
Greenpoint		e			
Greenpoint Pillow (T)	1/1	--	11.1	--	--
Greenpoint Pillow (S)		e			
Greenpoint Pillow (M)		e			
Mt. Hood Test Site (T)	12/30	--	33.2	--	24.3 ^b
Mt. Hood Test Site (S)	12/29	110	32.9	6.5	22.2 ^b
Mt. Hood Test Site (M)	12/29	--	32.0	6.9	--
Mud Ridge Pillow (T)	N/R			1.2	--
Mud Ridge Pillow (S)	12/29	69	17.8	1.2	11.0
Mud Ridge Pillow (M)	12/29	--	17.3	--	--
Red Hill		e			
Red Hill Pillow (T)	1/1	--	24.3	0.0	--
Red Hill Pillow (S)		e			
Red Hill Pillow (M)		e			
Still Creek	DISCONTINUED				
Switchback		e			
Tilly Jane		e			
LOWER COLUMBIA WATERSHED AREA 7					
Blazed Alder Pillow (T)	1/1	--	14.4	0.0	--
Blazed Alder Pillow (S)	N/R			0.0	--
Blazed Alder Pillow (M)	N/R			0.0	--
Mt. Hood Test Site (T)	12/30	--	33.2	--	24.3 ^b
Mt. Hood Test Site (S)	12/29	110	32.9	6.5	22.2 ^b
Mt. Hood Test Site (M)	12/29	--	32.0	6.9	--
Mud Ridge Pillow (T)	N/R			1.2	--
Mud Ridge Pillow (S)	12/29	69	17.8	1.2	11.0
Mud Ridge Pillow (M)	12/29	--	17.3	--	--
North Fork Res. (T)	1/1	--	4.7	0.0	--
North Fork Res. (S)	N/R			0.0	--
North Fork Res. (M)	N/R			0.0	--
Still Creek	DISCONTINUED				
WILLAMETTE WATERSHEDS AREA 8					
Cascade Summit	12/28	64	16.4	2.7	11.1
Cascade Summit Plw. (T)	12/28	--	18.6	--	--
Cascade Summit Plw. (S)	12/28	75	19.0	4.9	--
Cascade Summit Plw. (M)	12/28	--	18.0	4.2	--
Champion	12/30	33	9.7	0.0	12.4
Clackamas Lake		e			
Clackamas Lake Plw. (T)	1/1	--	8.7	--	--
Clackamas Lake Plw. (S)		e			
Clackamas Lake Plw. (M)		e			
Clear Lake	12/31	27	5.8	0.0	3.3
Clear Lake Plw. (T)	N/R				
Clear Lake Plw. (S)	N/R			0.0	--
Clear Lake Plw. (M)	12/31	--	9.7	0.0	--
Clear Lake Expt.	12/31	45	10.4	0.0	5.7

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c
WILLAMETTE WATERSHEDS (CONT.)					
Daly Lake Plw. (T)	1/1	--	9.4	0.0	--
Daly Lake Plw. (S)	N/R			0.0	--
Daly Lake Plw. (M)	N/R			0.0	--
Dead Horse Grade	Late Report			0.0	6.0
Golden Curry Creek	12/30	4	1.0	0.0	2.2
Hogg Pass	12/29	80	23.0	3.3	14.8
Hogg Pass Pillow (T)	12/29	--	24.8	5.1	--
Hogg Pass Pillow (S)	12/29	85	24.2	4.3	--
Hogg Pass Pillow (M)	12/29	--	24.7	5.0	--
Holland Meadows Plw. (T)	1/1	--	10.8	--	--
Holland Meadows Plw. (S)	N/R				
Holland Meadows Plw. (M)	N/R				
Jump Off Joe Pillow (T)	N/R				
Jump Off Joe Pillow (S)	N/R			0.0	--
Jump Off Joe Pillow (M)	N/R			0.0	--
Layng Creek	DISCONTINUED				
Little Meadows Plw. (T)	1/1	--	12.9	--	--
Little Meadows Plw. (S)	N/R				
Little Meadows Plw. (M)	N/R				
Lost Creek Ranch	Late Report			0.0	1.8
Lund Park	DISCONTINUED				
Marion Forks	12/29	25	5.2	0.0	4.5
Marion Forks Pillow (T)	N/R				
Marion Forks Pillow (S)	12/29	28	5.4	7.3	--
Marion Forks Pillow (M)	12/29	--	5.2	5.8	--
Marys Peak		e			
McCredie Springs	12/28	TR	0.1	0.0	0.5 ^b
McKenzie	Late Report			7.6	19.3
McKenzie Pillow (T)	1/1	--	23.5	--	--
McKenzie Pillow (S)	Late Report			7.3	--
McKenzie Pillow (M)	Late Report			5.8	--
Mt. Hood Test Site (T)	12/30	--	33.2	--	24.3 ^b
Mt. Hood Test Site (S)	12/29	110	32.9	6.5	22.2 ^b
Mt. Hood Test Site (M)	12/29	--	32.0	6.9	--
Peavine Ridge Pillow (T)	1/1	--	8.9	--	4.9 ^b
Peavine Ridge Pillow (S)	N/R			0.0	--
Peavine Ridge Pillow (M)	N/R			0.0	--
Railroad Overpass	N/R			0.0	1.3 ^b
Railroad Overpass Plw. (T)	12/28	--	0.5	--	--
Railroad Overpass Plw. (S)	12/28	5	1.0	0.0	--
Railroad Overpass Plw. (M)	12/28	--	0.6	0.0	--
Roaring River Plw. (T)	1/1	--	15.0	2.7	--
Roaring River Plw. (S)	N/R			2.2	--
Roaring River Plw. (M)	N/R			2.5	--
Saddle Mtn. Pillow (T)	1/1	--	4.9	0.0	--
Salt Creek Falls	12/28	20	3.8	0.0	5.6
Salt Creek Falls Plw. (T)	12/28	--	8.3	1.0	--
Salt Creek Falls Plw. (S)	12/28	38	8.2	1.4	--
Salt Creek Falls Plw. (M)	12/28	--	7.9	1.0	--
Santiam Junction	12/29	50	13.1	0.0	9.3
Santiam Junction Plw. (T)	12/29	--	13.4	--	--
Santiam Junction Plw. (S)	12/29	51	12.8	0.0	--
Santiam Junction Plw. (M)	12/29	--	13.6	0.0	--
Seine Creek Pillow (T)	1/1	--	1.6	--	--
Still Creek	DISCONTINUED				
Summit Lake Pillow (T)	N/R				
Summit Lake Pillow (S)		e			
Summit Lake Pillow (M)		e			
Timothy Lake	N/R			--	6.0 ^b
Weaver Creek	12/30	TR	0.1	0.0	0.4 ^b
White Branch Slide	Late Report			0.0	2.8
Whitewater Bridge	12/29	17	2.3	0.0	2.1 ^b

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

JANUARY 1, 1982

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. °
ROGUE, UMPQUA WATERSHEDS AREA 9					
Althouse #2		e			
Althouse #3		e			
Annie Spring	1/6	116	34.1	11.7	17.6
Beaver Dam Creek	12/30	14	4.1	0.0	6.1
Bigelow Camp Plw.(T)	1/1	--	3.7	--	--
Bigelow Camp Plw.(S)		e			
Bigelow Camp Plw.(M)		e			
Big Red Mountain		e			
Big Red Mtn. Plw.(T)	N/R				
Big Red Mtn. Plw.(S)		e			
Big Red Mtn. Plw.(M)		e			
Billie Creek Divide	12/30	43	11.9	1.6	8.6
Billie Cr. Div. Plw.(T)	12/30	--	12.2	4.4	--
Billie Cr. Div. Plw.(S)	12/30	44	12.1	3.2	--
Billie Cr. Div. Plw.(M)	12/30	--	11.5	4.3	--
Caliban		e			
Caliban (Alternate)		e			
Champion	12/30	33	9.7	0.0	12.4
Cold Springs Camp		e			
Cold Spgs. Camp Plw. (T)	1/1	--	17.1	--	--
Cold Spgs. Camp Plw. (S)		e			
Cold Spgs. Camp Plw. (M)		e			
Deadwood Junction	12/30	8	2.0	0.0	4.3 ^b
Diamond-Crater Summit	12/21	56	13.9	5.5	11.7
Diamond Lake	12/21	28	7.3	0.7	7.6
Diamond Lake Plw. (T)	12/21	--	4.2	--	--
Diamond Lake Plw. (T)	1/1	--	10.5	--	--
Diamond Lake Plw. (S)	12/21	27	6.5	0.0	--
Diamond Lake Plw. (M)	12/21	--	4.2	0.0	--
Fish Lake	12/30	16	3.8	1.1	5.5 ^b
Fish Lake Pillow (T)	12/30	--	4.4	--	--
Fish Lake Pillow (S)	12/30	17	4.1	0.0	--
Fish Lake Pillow (M)	12/30	--	4.0	--	--
Fourmile Lake		e			
Fourmile Lake Pillow (T)	1/1	--	18.9	6.4	--
Fourmile Lake Pillow (S)		e			
Fourmile Lake Pillow (M)		e			
Grayback Peak		e			
Howard Prairie Reservoir	12/30	10	1.8	0.0	4.0
Hyatt Prairie	12/30	11	2.2	0.0	4.0
Hyatt Prairie Pillow (T)	12/31	--	3.3	--	--
Hyatt Prairie Pillow (S)	N/R			0.0	--
Hyatt Prairie Pillow (M)	12/31	--	2.8	0.0	--
King Mountain #1	12/29	11	2.2	0.0	5.7 ^b
King Mountain #2	12/29	12	2.3	0.0	3.6 ^b
King Mountain #2 Plw.(T)	12/29	--	0.9	--	--
King Mountain #2 Plw.(S)	12/29	9	2.6	0.0	--
King Mountain #2 Plw.(M)	12/29	--	1.4	0.0	--
King Mountain #3	12/29	3	1.1	0.0	1.9 ^b
King Mountain #4	12/29	0	0.0	0.0	0.2 ^b
King Mountain #5	12/29	0	0.0	0.0	0.1 ^b
King Mountain #6	12/29	0	0.0	0.0	0.1 ^b
Mt. Ashland Switchback		e			
Mule Creek	12/29	4	1.6	0.0	4.6 ^b
North Umpqua	N/R			0.3	6.4
Page Mountain		e			
Park Headquarters	1/5	154	43.4	18.0	25.2
Red Butte #1	12/28	13	3.2	0.0	5.2 ^b
Red Butte #2	12/28	8	1.2	0.0	3.0
Red Butte #3	12/28	5	1.0	0.0	1.8 ^b
Red Butte #4	12/28	4	1.0	0.0	1.1 ^b
Red Butte #5	12/28	0	0.0	0.0	1.5 ^b
Red Butte #6	12/28	0	0.0	0.0	0.4 ^b
Seven Mile		e			
Seven Mile Pillow (T)	N/R				
Seven Mile Pillow (S)		e			
Seven Mile Pillow (M)		e			
Silver Burn	12/30	23	4.0	0.0	6.1
Siskiyou Summit	12/30	9	2.1	0.0	3.2
Ski Bowl Road		e			
South Fork Canal	1/6	24	4.0	0.0	2.0
Trap Creek	12/31	23	5.0	0.0	5.6

SNOW

SNOW	THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. °
KLAMATH WATERSHEDS AREA 10					
Annie Spring	1/6	116	34.1	11.7	17.6
Billie Creek Divide	12/30	43	11.9	1.6	8.6
Billie Cr. Div. Plw.(T)	12/30	--	12.2	4.4	--
Billie Cr. Div. Plw.(S)	12/30	44	12.1	3.2	--
Billie Cr. Div. Plw.(M)	12/30	--	11.5	4.3	--
Chemult Alternate	1/4	52	9.3	1.1	4.9b
Chemult Alternate Plw.(T)	N/R				
Chemult Alternate Plw.(S)	1/4	54	9.5	0.0	--
Chemult Alternate Plw.(M)	1/4	--	9.2	0.0	--
Chiloquin (PP&L)	12/31	12	1.9	--	--
Cold Springs Camp		e			
Cold Spgs. Camp Plw.(T)	1/1	--	17.1	--	--
Cold Spgs. Camp Plw.(S)		e			
Cold Spgs. Camp Plw.(M)		e			
Crazyman Flat *		e			
Crowder Flat (Calif.) *		e			
Crystal (PP&L)	12/31	17	2.8	0.0	4.1b
Diamond-Crater Summit	12/21	56	13.9	5.5	11.7
Dog Hollow *		e			
Finley Corrals *		e			
Fort Klamath (PP&L)	12/31	21	3.2	0.0	1.8b
Fourmile Lake		e			
Fourmile Lake Plw. (T)	1/1	--	18.9	6.4	--
Fourmile Lake Plw. (S)		e			
Fourmile Lake Plw. (M)		e			
Gerber	1/5	12	2.8	0.0	1.1
Harriman (PP&L)	12/31	10	1.6	0.0	2.3b
Howard Prairie	12/30	10	1.8	0.0	4.0
Hyatt Prairie Reservoir	12/30	11	2.2	0.0	4.0
Hyatt Prairie Res.Plw.(T)	12/31	--	3.3	--	--
Hyatt Prairie Res.Plw.(S)	N/R			0.0	--
Hyatt Prairie Res.Plw.(M)	12/31	--	2.8	0.0	--
Park Headquarters	1/5	154	43.4	18.0	25.2
Quartz Mountain	12/29	11	1.4	0.0	2.3
Quartz Mtn. Pillow (T)	12/29	--	1.9	--	--
Quartz Mtn. Pillow (S)	12/29	13	1.6	0.0	--
Quartz Mtn. Pillow (M)	12/29	--	1.8	0.0	--
Seven Mile		e			
Seven Mile Pillow (T)	N/R				
Seven Mile Pillow (S)		e			
Seven Mile Pillow (M)		e			
State Line (Calif.) *		e			
Strawberry		e			
Strawberry Pillow (T)	1/1	--	2.3	--	--
Strawberry Pillow (S)		e			
Strawberry Pillow (M)		e			
Summer Rim *		e			
Summer Rim		e			
Summer Rim Pillow (T)	1/1	--	13.3	4.0	--
Summer Rim Pillow (S)		e			
Summer Rim Pillow (M)		e			
Sycan Flat *		e			
Taylor Butte	12/22	8	1.4	0.3	1.9
Taylor Butte Pillow (T)	N/R			1.3	--
Taylor Butte Pillow (S)	12/22	9	1.8	0.8	--
Taylor Butte Pillow (M)	12/22	--	2.9	0.9	--

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

JANUARY 1, 1982

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c

LAKE COUNTY, GOOSE LAKE WATERSHEDS AREA 11					
Adin Mountain (Calif.)		e			
Bald Mountain (Nev.)		e			
Barley Camp *		e			
Bear Flat Meadow *		e			
Camas Creek #1	12/29	18	3.2	0.0	3.4
Camas Creek #2	12/29	24	3.8	0.0	--
Cedar Pass (Calif.)		e			
Colvin Creek *		e			
Cox Flat *		e			
Crowder Flat (Calif.) *		e			
Dismal Swamp (Calif.) *		e			
Dismal Swamp #2 Plw.(T)	1/1	--	17.6	6.7	--
Dismal Swamp #2 Plw.(S)		e			
Dismal Swamp #2 Plw.(M)		e			
Finley Corrals *		e			
Hart Mountain *		e			
Little Bally Mtn. (Nev.)		e			
Mt. Bidwell (Calif.)		e			
North Star (Calif.)		e			
Patton Meadows *		e			
Quartz Mountain	12/29	11	1.4	0.0	2.3
Quartz Mountain Plw.(T)	12/29	--	1.9	--	--
Quartz Mountain Plw.(S)	12/29	13	1.6	0.0	--
Quartz Mountain Plw.(M)	12/29	--	1.8	0.0	--
Reservation Creek (Calif.)		e			
Rogger Meadows *		e			
Sherman Valley *		e			
Silver Creek	12/28	4	0.4	0.0	1.0
Silver Creek Plw.(T)	N/R			2.0	--
Silver Creek Plw.(S)	1/6	42	9.8	--	--
Silver Creek Plw.(M)	1/6	--	9.8	--	--
State Line (Calif.) *		e			
Strawberry		e			
Strawberry Plw.(T)	1/1	--	2.3	--	--
Strawberry Plw.(S)		e			
Strawberry Plw.(M)		e			
Summer Rim *		e			
Summer Rim		e			
Summer Rim Plw.(T)	1/1	--	13.3	4.0	--
Summer Rim Plw.(S)		e			
Summer Rim Plw.(M)		e			
Sycan Flat *		e			

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST RECORD	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (Inches)	
				Last Yr.	Ave. ^c

HARNEY BASIN WATERSHEDS AREA 12					
Blue Mountain Springs	12/31	50	10.8	6.4	6.5
Blue Mtn. Spgs. Plw.(T)	12/31	--	11.7	--	--
Blue Mtn. Spgs. Plw.(S)	12/31	52	11.0	7.0	6.6 ^b
Blue Mtn. Spgs. Plw.(M)	12/31	--	10.8	--	5.4 ^b
Buck Pasture *		e			
Buckskin Lake *		e			
Call Meadows *		e			
Delintment Lake		e			
Denio Creek *	DISCONTINUED				
Disaster Peak (Nev.)		e			
Emigrant Butte		e			
Fish Creek *	DISCONTINUED				
Fish Creek		e			
Fish Creek (Rev.)		e			
Fish Creek Plw. (T)	N/R			5.5	--
Fish Creek Plw. (S)		e			
Fish Creek Plw. (M)		e			
Government Corrals		e			
Hart Mountain *		e			
Idlewild Camp Alt.	12/31	15	3.0	0.0	2.4 ^b
Izee Summit	12/30	30	5.4	1.8	3.2
Lake Creek R.S.	12/30	35	7.2	3.0	4.2
Lake Creek R.S. Plw.(T)	12/30	--	9.7	2.5	--
Lake Creek R.S. Plw.(S)	12/30	38	8.0	4.0	--
Lake Creek R.S. Plw.(M)	12/30	--	9.0	2.3	--
Oregon Canyon *		e			
Pueblo Summit *		e			
Rock Springs	12/29	25	4.0	0.8	2.1
Rock Springs Plw. (T)	12/29	--	5.0	--	--
Rock Springs Plw. (S)	12/29	26	4.8	0.0	--
Rock Springs Plw. (M)	N/R			0.0	--
Silvies *	DISCONTINUED				
Silvies		e			
Silvies Pillow (T)	N/R			3.0	--
Silvies Pillow (S)		e			
Silvies Pillow (M)		e			
Snow Mountain		e			
Snow Mountain Plw. (T)	1/1	--	7.2	1.5	--
Snow Mountain Plw. (S)		e			
Snow Mountain Plw. (M)		e			
Starr Ridge	12/30	23	4.2	0.8	2.6 ^b
Starr Ridge Pillow (T)	12/30	--	4.9	--	--
Starr Ridge Pillow (S)	12/30	24	4.4	1.0	--
Starr Ridge Pillow (M)	12/30	--	5.3	--	--
Stinking Water	12/30	16	3.2	0.0	1.5
Trout Creek *		e			
"V" Lake *		e			

* Aerial
N/R No Report
TR Trace
T = Telemetry Measurement
S = Snow Tube Measurement
M = Manometer Measurement

BASIC DATA SUPPLEMENT 2

JANUARY 1, 1982

PRECIPITATION (Inches)

PRECIPITATION (Inches)		CURRENT INFORMATION		PAST RECORD	
DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	Date of Reading	Precipitation	Last Year	Average ^c
Arbuckle Mountain (Morrow County)	5400	From 9/28 To 12/29	14.00"		
Beaver Reservoir (Union County)	5150	From 10/2 To 12/30	11.28"		
Billie Creek Divide (Jackson County)	5310	From 9/30 To 12/30	32.16"		
Blue Mountain Springs (Grant County)	5900	From 10/7 To 12/31	16.68"		
Bowman Springs (Union County)	4580	From 10/28 To 12/29	12.82"		
Cascade Summit (Lane County)	4880	From 9/30 To 12/28	37.44"		
Chemult (Klamath County)	4760	From 10/1 To 1/4	30.12"		
Clear Lake (Wasco County)	3500	From 9/28 To 12/31	24.00"		
County Line (Umatilla County)	4800	From 10/2 To 12/29	3.12"		
Diamond Lake (Douglas County)	4600	From 10/1 To 12/21	29.28"		
Eilertson Meadow (Baker County)	5400	From 9/29 To 1/2	13.20"		
Emigrant Springs (Umatilla County)	3925	From 9/29 To 12/29	12.12"		
Fish Lake (Jackson County)	4665	From 9/30 To 12/30	27.12"		
Gold Center (Grant County)	5340	From 9/25 To 1/2	12.00"		
High Ridge (Umatilla County)	4150	From 9/29 To 12/31	21.12"		
Hogg Pass (Jefferson County)	4755	From 10/2 To 12/29	46.32"		
Hyatt Prairie (Jackson County)	4900	From 9/30 To 12/31	21.36"		
King Mountain #2 (Douglas County)	4500	From 9/28 To 12/29	45.12"		
Lake Creek (Grant County)	5120	From 10/9 To 12/30	13.20"		
Lucky Strike (Umatilla County)	5050	From 10/2 To 12/29	11.25"		
Madison Butte (Morrow County)	5250	From 9/28 To 12/29	9.00"		
Marion Forks (Linn County)	2730	From 10/2 To 12/29	42.96"		

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

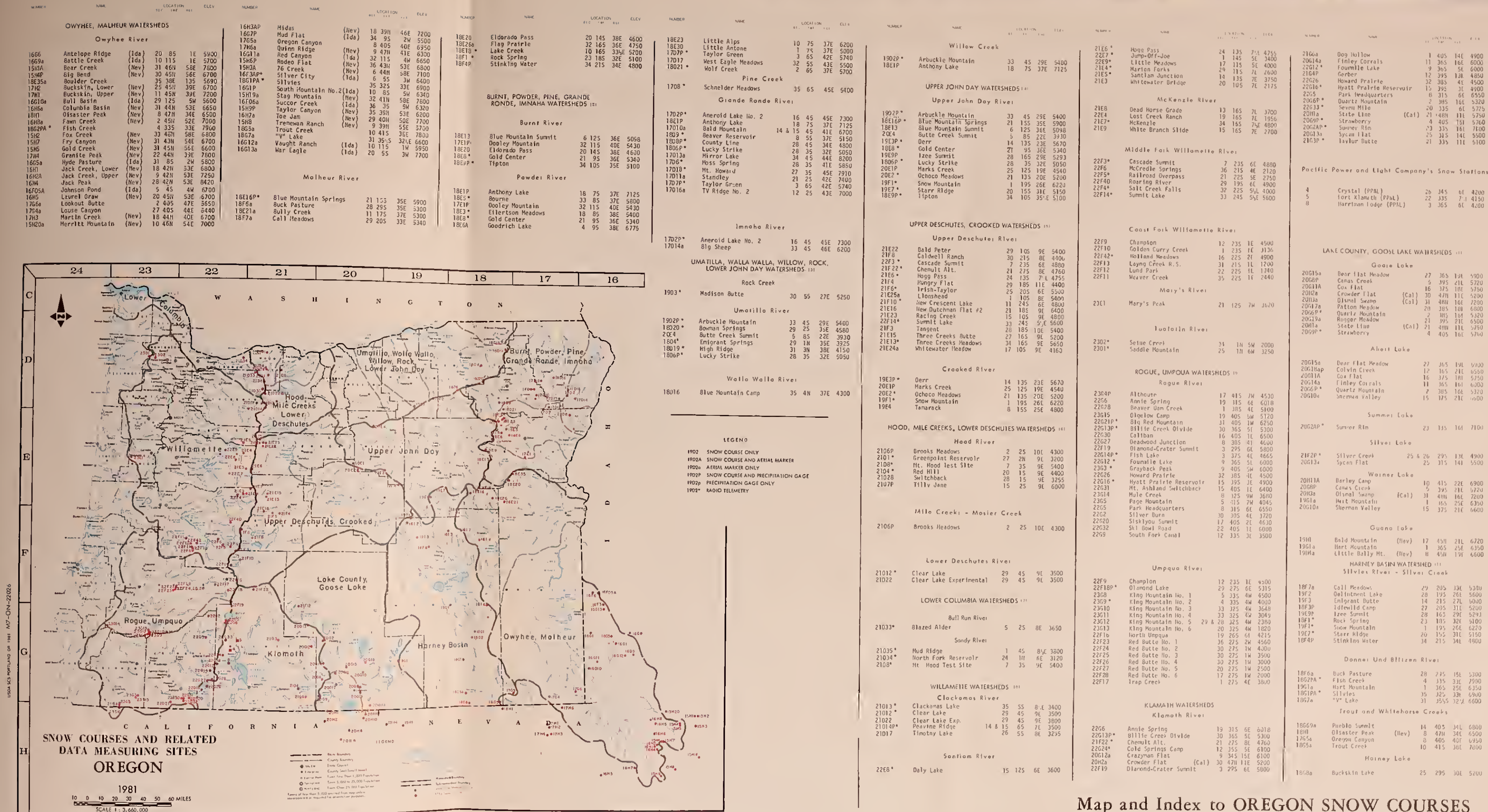
BASIC DATA SUPPLEMENT 2

JANUARY 1, 1982

PRECIPITATION (Inches)

PRECIPITATION (Inches)		CURRENT INFORMATION		PAST RECORD	
DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	Date of Reading	Precipitation	Last Year	Average ^c
Marks Creek (Crook County)	4540	From 12/2 To 1/7	8.70"		
Mt. Hood Test Site (Clackamas County)	5400	From 9/30 To 12/29	37.25"		
Mud Ridge (Clackamas County)	4050	From 9/28 To 12/29	32.28"		
Quartz Mountain (Lake County)	6300	From 10/7 To 12/29	15.36"		
Railroad Overpass (Lane County)	2750	From 9/30 To 12/28	33.96"		
Rock Springs (Grant County)	5100	From 10/8 To 12/29	8.88"		
Salt Creek Falls (Lane County)	4000	From 9/30 To 12/28	43.20"		
Santiam Junction (Lane County)	3750	From 10/2 To 12/29	41.64"		
Silver Creek (Lake County)	5720	From 10/7 To 1/6	20.08"		
Starr Ridge (Grant County)	5156	From 10/8 To 12/30	9.72"		
Taylor Butte (Klamath County)	5040	From 10/1 To 12/22	16.44"		
Tipton (Baker County)	5100	From 9/25 To 1/2	13.92"		

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.



The Following Organizations Cooperate in the Oregon Snow Survey Work

STATE

Idaho Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon State University
Oregon Department of Water Resources
Soil and Water Conservation Districts of Oregon

COUNTY

Douglas County Water Resources Survey

FEDERAL

Department of Agriculture
Cooperative Extension Service
Forest Service
Soil Conservation Service
Department of Army
Corps of Engineers
Department of Commerce
NOAA, National Weather Service
Department of Energy
Bonneville Power Administration
Department of the Interior
Bureau of Land Management
Fish and Wildlife Service
Geological Survey
Bureau of Reclamation

PUBLIC UTILITIES

Pacific Power and Light Company
Portland General Electric Company
California-Pacific National

MUNICIPALITIES

City of Baker
City of La Grande
City of Portland
City of The Dalles
City of Walla Walla

IRRIGATION DISTRICTS

Arnold Irrigation District
Associated Ditch Companies
Burnt River Irrigation District
Central Oregon Irrigation District
East Fork Irrigation District
Grants Pass Irrigation District
Hood River Irrigation District
Jordan Valley Irrigation District
Juniper Flat Irrigation District
Lakeview Water Users, Incorporated
Medford Irrigation District
Middle Fork Irrigation District
North Board of Control - Owyhee Project
Ochoco Irrigation District
Rogue River Valley Irrigation District
South Board of Control - Owyhee Project
Squaw Creek Irrigation District
Talent Irrigation District
Tumalo Project
Vale - Oregon Irrigation District
Warmsprings Irrigation District

PRIVATE ORGANIZATIONS

The Crag Rats, Hood River, Oregon

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